
APPENDIX E

AGENCY COORDINATION

-----Original Message-----

From: Carol_J_Terry@exec.state.hi.us
[mailto:Carol_J_Terry@exec.state.hi.us]
Sent: Tuesday, June 25, 2002 3:49 PM
To: Jeanette Weisman
Subject: State T&E species list

Attached is a list of animal species and their Federal and State status - threatened or endangered. Hawaii does not list additional SOC's.

For information about distribution of endangered species in Hawaii, you can contact Shannon McElvane, Director of the Hawaii Natural Heritage Program at mcelvane@hawaii.edu. Several years ago the Heritage Program was transferred from TNC to the University of Hawaii. Keep in mind that the Heritage database is incomplete. If you are interested in determining whether specific endangered or threatened animal species are known from a particular area, your best source of information is local biologists who are familiar with that area. If you need that kind of information, let me know and I can direct you to biologists who are likely to have the information you need.

(See attached file: T&E Animals-Hawaii (Fed and State Status).doc)

Carol J. Terry, Ph.D.
Nongame Wildlife Biologist
Hawaii Division of Forestry and Wildlife
1151 Punchbowl St., Rm. 325
Honolulu, HI 96813
phone (808) 587-4184; fax (808) 587-0160
Carol_J_Terry@exec.state.hi.us

Endangered and Threatened Animals in Hawai'i (Federal and State Status)
Hawai'i Division of Forestry and Wildlife-February 2001

Common Name	Scientific Name	Family	Federal Status	State Status
<u>Mammals</u>				
bat, Hawaiian hoary	<i>Lasiurus cinereus semotus</i>	Vespertilionidae	E	E
seal, Hawaiian monk	<i>Monachus schauinslandi</i>	Phocidae	E	E
whale, blue	<i>Balaenoptera musculus</i>	Balaenopteridae	E	E
whale, bowhead	<i>Balaena mysticetus</i>	Balaenidae	E	E
whale, finback	<i>Balaenoptera physalus</i>	Balaenopteridae	E	E
whale, gray	<i>Eschrichtius robustus</i>	Eschrichtiidae	E	E
whale, humpback	<i>Megaptera novaeangliae</i>	Balaenopteridae	E	E
whale, right	<i>Balaena glacialis</i>	Balaenidae	E	E
whale, Sei	<i>Balaenoptera borealis</i>	Balaenopteridae	E	E
whale, sperm	<i>Physeter catodon</i>	Physeteridae	E	E
<u>Birds</u>				
'ākepa, Hawai'i	<i>Loxops coccineus coccineus</i>	Drepanidinae	E	E
'ākepa, Maui	<i>Loxops coccineus ochraceus</i>	Drepanidinae	E	E
'ākialoa, Kaua'i	<i>Hemignathus procerus</i>	Drepanidinae	E	E
'akiapola'au	<i>Hemignathus munroi</i>	Drepanidinae	E	E
albatross, short-tailed	<i>Phoebastria albatrus</i>	Diomedidae	E	E
coot, Hawaiian	<i>Fulica americana alai</i>	Rallidae	E	E
creeper, Hawai'i	<i>Oreomystis mana</i>	Drepanidinae	E	E
creeper, Moloka'i	<i>Paroreomyza flammea</i>	Drepanidinae	E	E
creeper, O'ahu	<i>Paroreomyza maculata</i>	Drepanidinae	E	E
crow, Hawaiian	<i>Corvus hawaiiensis</i>	Corvidae	E	E
duck, Hawaiian	<i>Anas wyvilliana</i>	Anatidae	E	E
duck, Laysan	<i>Anas laysanensis</i>	Anatidae	E	E
'elepaio, O'ahu	<i>Chasiempis ibidus</i>	Muscicapidae	E	E
finch, Laysan	<i>Telespyza cantans</i>	Drepanidinae	E	E
finch, Nihoa	<i>Telespyza ultima</i>	Drepanidinae	E	E
goose, Hawaiian	<i>Branta sandvicensis</i>	Anatidae	E	E
hawk, Hawaiian	<i>Buteo solitarius</i>	Accipitridae	E	E
honeycreeper, crested	<i>Palmeria dolei</i>	Drepanidinae	E	E
'i'iwi	<i>Vestiaria coccinea</i>	Fringillidae	-	E*

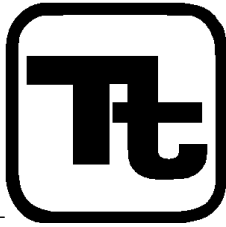
* Listed by the state as endangered on O'ahu, Lana'i, and Moloka'i.

Common Name	Scientific Name	Family	Federal Status	State Status
moorhen, Hawaiian common	<i>Gallinula chloropus sandvicensis</i>	Rallidae	E	E
nukupū	<i>Hemignathus lucidus</i>	Drepanidinae	E	E
'o'o, Kaua'i	<i>Moho braccatus</i>	Meliphagidae	E	E
'o'u	<i>Psittirostra psittacea</i>	Drepanidinae	E	E
owl, Hawaiian (pueo)	<i>Asio flammeus sandwichensis</i>	Strigidae	-	E*
* Listed by the state as endangered on O'ahu.				
palila	<i>Loxioides bailleui</i>	Drepanidinae	E	E

parrotbill, Maui	<i>Pseudonestor xanthophrys</i>	Drepanidinae	E	E
petrel, Hawaiian dark-rumped	<i>Pterodroma phaeopygia sandwichensis</i>	Procellariidae	E	E
po'ouli	<i>Melamprosops phaeosoma</i>	Drepanidinae	E	E
shearwater, Newell's Townsend's	<i>Puffinus auricularis newelli</i>	Procellariidae	T	T
stilt, Hawaiian	<i>Himantopus mexicanus knudseni</i>	Recurvirostridae	E	E
storm-petrel, band-rumped	<i>Oceanodroma castro cryptoleucura</i>	Procellariidae	-	E
tern, white (O'ahu)	<i>Gygis alba rothschildi</i>	Laridae	-	T
thrush, large Kaua'i	<i>Myadestes myadestinus</i>	Muscicapidae	E	E
thrush, Moloka'i	<i>Myadestes lanaiensis rutha</i>	Muscicapidae	E	E
thrush, small Kaua'i	<i>Myadestes palmeri</i>	Muscicapidae	E	E
<u>Reptiles</u>				
sea turtle, green	<i>Chelonia mydas</i>	Cheloniidae	T	T
sea turtle, hawksbill	<i>Eretmochelys imbricata</i>	Cheloniidae	E	E
sea turtle, leatherback	<i>Dermochelys coriacea</i>	Dermochelyidae	E	E
sea turtle, loggerhead	<i>Caretta caretta</i>	Cheloniidae	T	T
sea turtle, olive ridley	<i>Lepidochelys olivacea</i>	Cheloniidae	T	T
<u>Mollusks</u>				
snails, O'ahu tree	<i>Achatinella</i> spp.	Achatinellidae	E	E
<u>Arthropods</u>				
moth, Blackburn's sphinx	<i>Manduca blackburni</i>	Sphingidae	E	E
amphipod, Kaua'i cave	<i>Spelaeorchestia koloana</i>	Talitridae	E	E

* Listed by the state as endangered on O'ahu, Lana'i, and Moloka'i.

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TETRA TECH, INC.

2028 Pa'a Street, # 3000
Honolulu, HI 96819
Telephone (808) 441-5830
FAX (808) 441-5821

July 1, 2002

R. Michael Laurs, Laboratory Director
National Marine Fisheries Service
F/SWC2, Honolulu Laboratory
2570 Dole Street
Honolulu, Hawaii 96822-2396

Subject: Interim Brigade Combat Team (IBCT) EIS

Dear Mr. Laurs,

Tetra Tech is preparing an environmental impact statement (EIS) in accordance with the National Environmental Policy Act (NEPA) to evaluate the potential effects associated with the proposed action of the Army IBCT project, in which the Army proposes to transform the 2nd Brigade into an IBCT, and to enhance training capabilities in Hawaii.

The proposed action results from the need of the US Army to become more strategically responsive in the spectrum of military operations. This goal will be obtained by adjusting aspects of doctrine, training, leadership, organizations, material, and soldiers within the 2nd Brigade. The changes extend to doctrinal and involve force structure, or how many soldiers are in each type of unit. They extend also to equipment, whether new or modernized.

Pursuant to NEPA, the potential environmental and socioeconomic effects associated with the transformation of the 2nd Brigade will be evaluated. This EIS focuses on site-specific issues. Of the many sites affected, three are thought to potentially involve marine life. These sites are Pohakuloa Training Area (PTA) on the big island of Hawaii, Dillingham and Makua Military Reservation (MMR), both on Oahu. Proposed changes to PTA include improving an existing tank trail to an all weather road, and the use of Kawaihae Harbor as a disembarkation point for training at PTA. Kawaihae Harbor is currently used in this capacity. Project actions would be limited to the harbor and inland activities. Activities at Dillingham and MMR would be limited to an increase of training at the sites. The transformation would result in an increase in soldiers and vehicles over the existing brigade.

The purpose of this letter is to obtain your input in identifying marine species and communities within the project region that are recognized as significant or are of special concern to your agency. These species and communities may consist of:

Rare, threatened, or endangered species;
Species protected by statute;
Commercial fish or shellfish species;
Recreationally important fish or invertebrate species; and
Marine communities (vertebrate, invertebrate, or plant) that are considered sensitive or are of limited distribution.

To facilitate the EIS schedule, we would appreciate receiving your comments and materials within 30 days. If you foresee a delay in responding to this request, or if you have any questions, please contact me at (415) 974-1221, or George Redpath, the project manager, in Hawaii at (808) 441-5830.

Respectfully,
Tetra Tech

Ann Zoidis
Biologist

-----Original Message-----

From: John Naughton [mailto:john.naughton@noaa.gov]

Sent: Wednesday, November 27, 2002 8:32 AM

To: jsaufler@ttsfo.com

Cc: John Naughton

Subject: ICBT Draft EIS

The National Marine Fisheries Service (NMFS), Pacific Islands Area Office (PIAO), has received your letter announcing the preparation of an EIS on the transfer of the 2nd Brigade into an Interim Brigade Combat Team (ICBT). The letter, dated 1 July 2002, was addressed to NMFS Honolulu Laboratory Director Michael Laurs. PIAO did not receive a copy until 25 November 2002.

The letter contains a summary of proposed activities at several sites which will occur because of this action. These sites include Dillingham and Makua Military Reservations on Oahu, and Pohakuloa Training Area and Kawaihae Harbor on the island of Hawaii. Based on the summary information in the letter, NMFS believes the proposed action will have a minimal impact on those marine species and habitats for which we have a responsibility. However, we request a copy of the full Draft EIS in order to insure that any potential impact from the proposed action will be minimal.

Sincerely,

John Naughton
Pacific Islands Environmental Coordinator
PIAO, NMFS, NOAA
1601 Kapiolani Blvd., Suite 1110
Honolulu, Hawaii 96814-4700



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Region / Pacific Islands Area Office
1601 Kapiolani Boulevard, Suite 1110
Honolulu, Hawaii 96814-0047

December 13, 2002

Jen Saufler
Tetra Tech, Inc.
2828 Pa'a Street #3000
Honolulu, HI 96819

Re: Please refer to Consultation No: I-PI-02-234:MMD

Dear Ms. Saufler:

This responds to your request received December 12, 2002, for a list of protected species located in the proposed action of the Army Stryker Brigade Combat Team (SBCT) project area. Three sites have been identified that may potentially involve marine species. These sites are Pohakuloa Training Area (PTA) on the island of Hawaii, Dillingham and Makua Military Reservation (MMR), both on Oahu. The National Marine Fisheries Service (NOAA Fisheries) provides the following comments and information under our statutory authorities under the Endangered Species Act of 1973, as amended, 16 U.S.C. 1531 *et seq.*, and the Marine Mammal Protection Act of 1972, as amended 16 U.S.C. 1361 *et seq.* (MMPA).

ESA listed species occur in the waters around the Main Hawaiian Islands (MHI) and may potentially be found in the project areas. Threatened green turtles (*Chelonia mydas*), and endangered hawksbill turtles (*Eretmochelys imbricata*) occur in the waters and may also be found on the beaches of the MHI. Endangered Hawaiian monk seals (*Monachus schauinslandi*) are found in the nearshore waters and on the beaches throughout Hawaii. Endangered humpback whales (*Megaptera novaeangliae*) are found offshore during the winter breeding season (November-May). Endangered sperm whales (*Physeter macrocephalus*) are found offshore of the MHI year-round.

Additionally, all marine mammals are protected under the Marine Mammal Protection Act of 1972, as amended, 16 U.S.C. 1361 *et seq.* (MMPA). Marine mammals occurring in the waters off the MHI include:

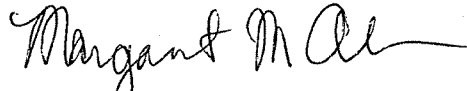
Bryde's whale (*Balaenoptera edeni*)
Cuvier's beaked whale (*Ziphius cavirostris*)
Pygmy sperm whale (*Kogia breviceps*)
Dwarf sperm whale (*Kogia simus*)
Melon-headed whale (*Peponocephala electra*)
Pygmy killer whale (*Feresa attenuata*)
False killer whale (*Pseudorca crassidens*)



Killer whale (*Orcinus orca*)
Short-finned pilot whale (*Globicephala macrorhynchus*)
Spinner dolphins (*Stenella longirostris*)
Striped dolphin (*Stenella coeruleoalba*)
Pantropical spotted dolphin (*Stenella attenuata*)
Common dolphin (*Delphinus delphis*)
Rough-toothed dolphin (*Steno bredanensis*)
Bottlenose dolphin (*Tursiops truncatus*)
Risso's dolphin (*Grampus griseus*)

We are forwarding your letter to our Habitat Conservation Program to provide additional information on habitat related concerns. Should you have further questions regarding the above species list and/or the section 7 process, please contact Margaret Akamine or David Nichols at (808) 973-2937 or fax (808) 973-2941.

Sincerely,

A handwritten signature in black ink, appearing to read "Margaret M. Akamine". The signature is fluid and cursive, with a long horizontal stroke at the end.

Margaret Akamine
Protected Species Program

cc: Alan Everson, Habitat Conservation Program

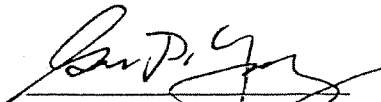
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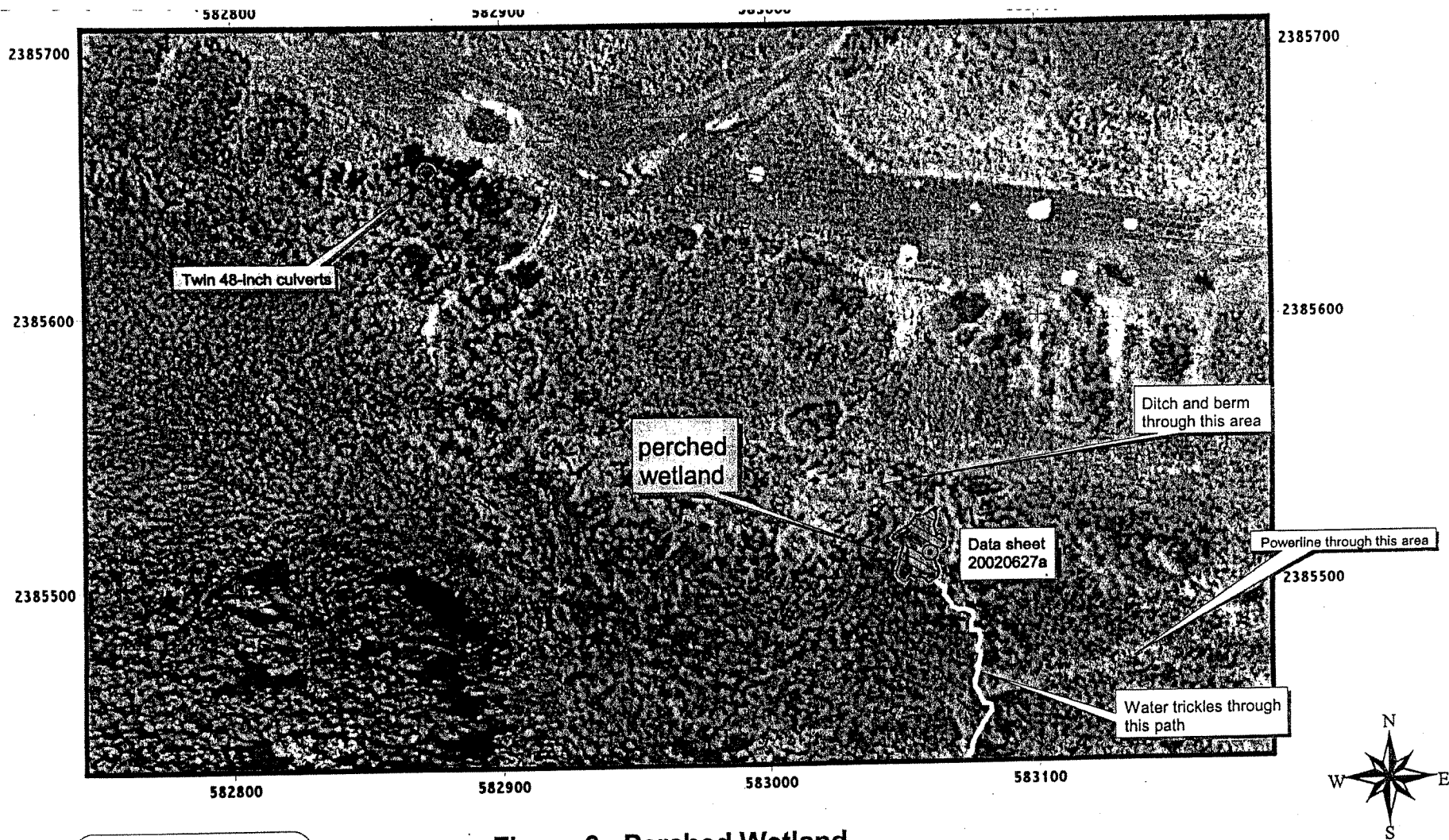
MEMORANDUM FOR: Chief, CEPOH-EC-T 9/5/02

DATE: 4 September 2002

SUBJECT: Certification of Wetland, Dillingham Military Reservation, Oahu Island

1. This is in response to your MFR dated 23 August 2002 regarding the subject project. Farley Watanabe of my staff has reviewed the drawings, database, and report for this project. The documentation complies with the procedures of the 1987 Corps Wetlands Delineation Manual and is adequate for certification purposes.
2. Based on the information provided, the map (Figure 6) included in the report entitled "*Wetland Survey of Dillingham Military Reservation*" which identified a perched wetland is hereby certified. The previously identified wetland identified in the agency ITAM (Figure 1) is not considered a jurisdictional wetland due to the absence of the hydrology indicator as required by the 1987 Corps Wetlands Delineation Manual.
3. Since wetlands are affected over time by both natural and man-made activities, we can expect local changes to occur in wetland boundaries. For the referenced maps, the wetland jurisdictional delineation is considered valid for a period of five years from the date of this memorandum (i.e., 4 September 2007). New information of local changes will require evaluation and may be used to revise delineations before the expiration date.
4. If you have any questions, please contact Mr. Watanabe at 438-7701 and refer to File Number 200200518.


George P. Young, P.E.
Chief, Regulatory Branch



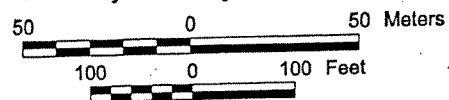
Themes Used

- Wetland datasheet
- COE wetland
- Image Dillingham50.sid



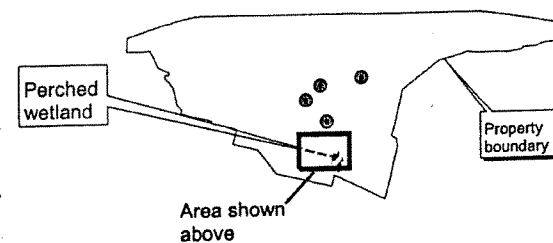
U.S. Army Corps
of Engineers
Honolulu District

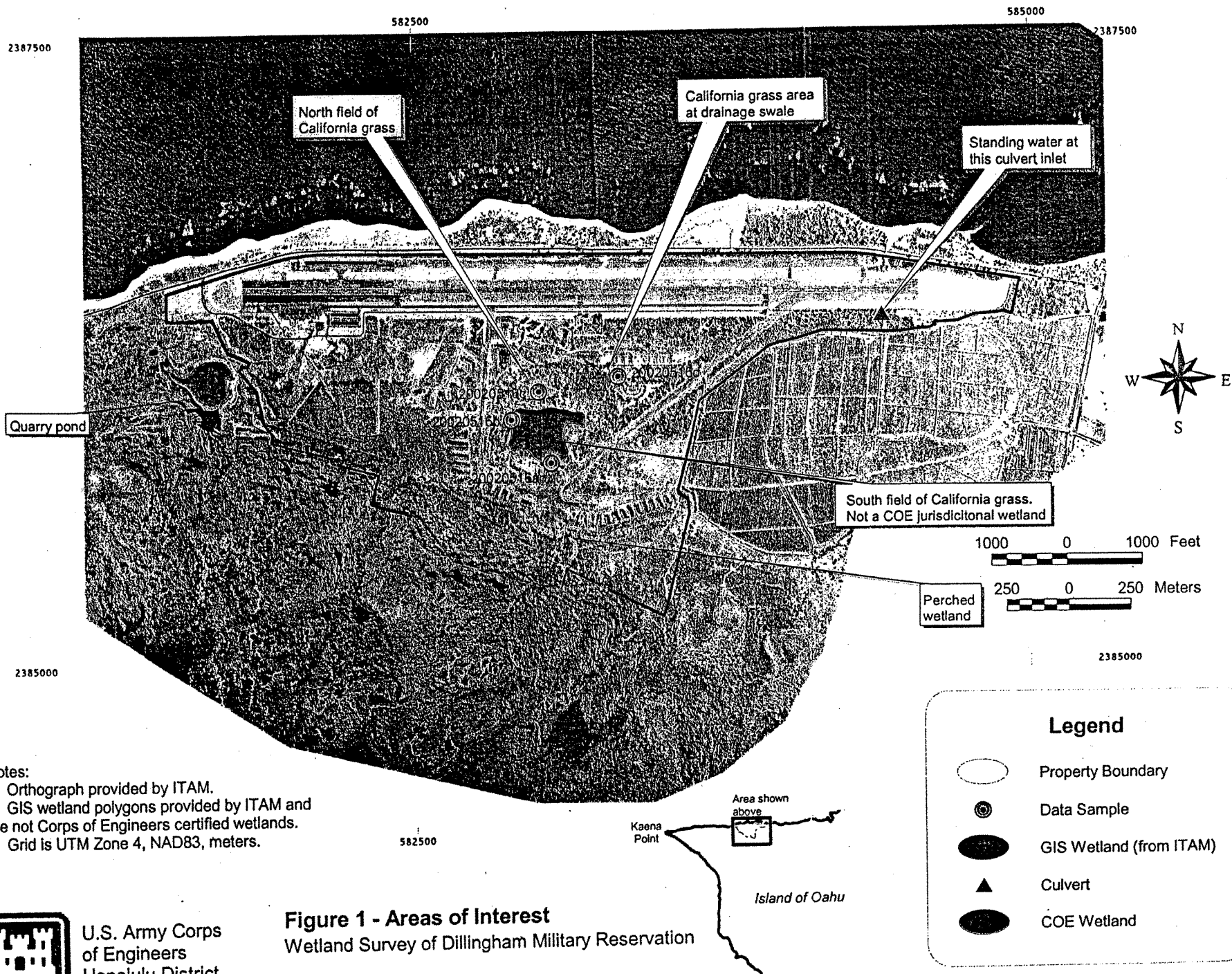
Figure 6 - Perched Wetland
Wetland Survey of Dillingham Military Reservation



Notes:

1. Orthograph and road theme provided by ITAM.
2. Data sheet, COE wetland, and culverts from GPS survey.
3. Grid is UTM Zone 4, NAD83, meters.





U.S. Army Corps
of Engineers
Honolulu District



DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY GARRISON, HAWAII
SCHOFIELD BARRACKS, HAWAII 96857-5000



REPLY TO
ATTENTION OF:

DEC 06 2002

Directorate of Public Works

Dr. Paul Henson
Field Supervisor
U.S. Fish and Wildlife Service
300 Ala Moana Boulevard, Room 3-122
Honolulu, Hawaii 96850

Dear Dr. Henson:

Enclosed for your review are copies of the:

- a. Pre-final BA for Programmatic Section 7 Consultation on Army Transformation of the 2nd Brigade, 25th Infantry Division (Light) to a Stryker Brigade Combat Team, Island of Hawaii (encl 1).
- b. Draft BA for Programmatic Section 7 Consultation on Routine Military Training and Army Transformation of the 2nd Brigade, 25th Infantry Division (Light) to a Stryker Brigade Combat Team, Various Sites, Oahu (encl 2).

The documents were prepared by the Center for the Environmental Management of Military Lands (CEMML) at Colorado State University. The reproduced copies have black and white maps. Reviewers are able to access colored maps located on a CD attached to the inside of the back covers of each report.

In order to meet the stringent timeline, comments must be received by Mr. Steve Kim (438-3072) at the Honolulu Engineer District (HED), U.S. Army Corps of Engineers NLT 13 Jan 03 with copy furnished to DPW Environmental Division. Please send comments to Mr. Steve Kim using the enclosed comment form (encl 3). We can also provide you a copy of

YELLOW COPY

this form electronically. Please ask those reviewing the document to provide any comments, if possible, prior to the Christmas and New Year holidays. CEMML will have only 3 weeks from 17 Jan to 6 Feb 03 to incorporate everyone's comments. If you have any questions please contact Mr. Alvin Char, DPW Environmental Division at 656-2878 ext. 1062.

Sincerely,



Floyd A. Quintana
Lieutenant Colonel, U.S. Army
Director of Public Works

Enclosures



DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, HONOLULU
FORT SHAFTER, HAWAII 96858-5440

January 6, 2003

REPLY TO
ATTENTION OF:

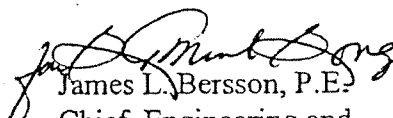
Environmental Technical Branch
Engineering and Construction Division

Mr. Paul Henson
Field Supervisor
U.S. Fish and Wildlife Service
Pacific Islands Ecoregion
300 Ala Moana Boulevard, Room 3-122
Box 5008
Honolulu, Hawaii 96850

Dear Mr. Henson:

The U.S. Army is intending to coordinate with the U.S. Fish and Wildlife Service (Service) in accordance with the Fish and Wildlife Coordination Act of 1934 [16 U.S.C. 661 *et seq.*; 48 Stat. 401], as amended, for a proposal to transform the 2nd Brigade of the 25th Infantry Division to a Stryker Brigade Combat Team (SBCT). The transformation of the Army's 2nd Brigade to a SBCT is a major undertaking entailing a series of changes in equipment, force structure, training practices, and new facilities. The proposed action would require construction of two military vehicle trails on Oahu and one military vehicle trail on the Island of Hawaii. The military vehicle trails would have stream crossings that may affect aquatic resources. The coordination is necessary to determine if the action or the resources are significant enough to warrant Service input into the planning and design of the project to minimize impacts to stream wildlife. We have been coordinating with Mr. Gordon Smith of your office and are arranging for field trips to view stream crossings. If you have any questions please contact Mr. Steve Kim at telephone number (808) 438-3072.

Sincerely,


James L. Bersson, P.E.
Chief, Engineering and
Construction Division

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United States Department of the Interior

FISH AND WILDLIFE SERVICE

Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 3-122
Box 50088
Honolulu, Hawaii 96850

MAY 16 2003

In Reply Refer To:
PI-03-18

Lieutenant Colonel David C. Press
Honolulu District Engineer
U.S. Army Corps of Engineers
Building 230
Fort Shafter, Hawaii 96858-5440

Subject: Fish and Wildlife Coordination Act Planning Aid Letter for the Schofield Barracks–Helemano Military Reservation, Schofield Barracks–Dillingham Military Reservation, and the Pohakuloa Training Area–Kawaihae Harbor Road Improvements Related to the U.S. Army's Force Transformation of the 2nd Brigade, 25th Infantry Division (Light), Schofield Barracks, Hawaii

Dear Lieutenant Colonel Press:

The Fish and Wildlife Coordination Act of 1934 [16 U.S.C. 661 *et seq.*; 48 Stat. 401], as amended (FWCA), was established to provide a framework to fully consider fish and wildlife conservation measures as a component of Federal projects that may significantly impact important water resources. The U.S. Fish and Wildlife Service (Service) is providing this Planning Aid Letter (PAL) for three proposed road projects: the Schofield Barracks–Helemano Military Reservation (HMR), Schofield Barracks–Dillingham Military Reservation (DMR), and Pohakuloa Training Area (PTA)–Kawaihae Harbor Road. This letter has been prepared under the authority of and in accordance with provisions of FWCA; the Federal Clean Water Act of 1977 [33 U.S.C. 1251 *et seq.*; 62 Stat. 1155], as amended (CWA); and the Endangered Species Act of 1973 [16 U.S.C. 1531 *et seq.*; 87 Stat. 884], as amended (ESA). These comments are also consistent with the National Environmental Policy Act of 1969 [42 U.S.C. 4321 *et seq.*; 83 Stat. 852], as amended (NEPA), and other authorities mandating Service concern for environmental values.

The Department of Defense is preparing an Environmental Impact Statement for programmatic changes related to Army Force Transformation in Hawaii. The proposed changes are associated with the conversion of the 2nd Brigade, 25th Infantry Division (Light) to an Stryker Brigade Combat Team (SBCT). This proposed transformation will require changes in military land use,

training patterns, and military infrastructure including training and maneuver areas for 400 Stryker armed vehicles. It is anticipated that this will result in a greater need for roadways dedicated to military use. Three road construction projects are proposed: (1) Schofield Barracks-HMR Road, which would involve acquiring access, paving, and installing electrical and telecommunications conduit primarily on existing private unpaved agricultural roads that extend from Schofield Barracks to HMR (approximately six miles); (2) Schofield Barracks-DMR Road (Dillingham Trail), which would involve acquiring access and paving existing private agricultural roads that extend from Schofield Barracks to DMR (approximately 15 miles); and (3) Kawaihae Harbor-PTA (Pohakuloa Military Trail) which would involve acquiring access, paving, and installing electrical and telecommunications conduits primarily on an abandoned military trail that once extended from Kawaihae Harbor to PTA (approximately 27 miles).

Note that the Improvements to Drum Road Project, which involves widening, paving, and installing electrical and telecommunications conduits on the existing unpaved road that extends from Helemano Military Reservation (HMR) to the Kahuku Training Area (KTA) and passes through the Kawaihoa Training Area (KLOA), is a closely related project that is progressing on a separate planning and review schedule. The Service previously provided a PAL regarding the Drum Road project to your office (November 2002), and have prepared a Draft FCWA report on that project (May 2003). Importantly, if the Improvements to Drum Road project proceeds as proposed, and if the Army transformation takes place, use of the newly paved Drum road will be a significant component of SBCT training.

Under NEPA and other relevant authorities, all components of the Army Transformation are considered a single Federal action for which cumulative environmental impacts, including potential impacts to fish and wildlife resources, are required to be addressed as a whole. For example, if constructed, the Drum Road, Schofield-HMR, and Dillingham Trail projects together would transect every watershed on the entire north shore of Oahu from Kahuku Point almost to Kaena Point. This is the least developed region on heavily urbanized Oahu, and represents almost one quarter of the circumference of the island. The area is recognized to contain significant marine and freshwater resources. Combined, the geographical extent of these roads is one of the largest transportation infrastructure development projects to be proposed in the State of Hawaii in the last several decades. Because planning for the Army Transformation projects are underway in a phased approach, with projects being designed and reviewed "separately," the Service reminds the Corps that, to comply with NEPA guidelines, the impacts of the various projects must be considered cumulatively, both in the context of programmatic analysis as well as project-specific and site-specific analyses.

A Federal project of this magnitude triggers multiple aspects of review by local, State, and Federal agencies, and by different functional programs within a single agency. In addition to the FWCA investigations and NEPA reviews by the Service for this project, the Service is also consulting under section 7 of the ESA, and will participate in the review of permitting under CWA sections 404 and 401. Please be advised that Service recommendations for conservation

measures regarding terrestrial resources potentially impacted by the road projects will be formulated through the section 7 process. Service recommendations regarding protection of Federal trust resources in the aquatic environment will be developed through FWCA and CWA-related reviews.

The following information was developed from information including project descriptions and maps provided to the Service by the Corps, a review of information contained in Service files, results of a site visit to the Oahu proposed road alignments, and a general knowledge of the areas under consideration. In addition, we consulted with the State of Hawaii Department of Land and Natural Resources, Division of Aquatic Resources, particularly the Hawaii Island district staff regarding the potential effects of the Kawaihae Harbor-PTA road.

Schofield Barracks-HMR Road

This road project would be constructed on existing unpaved agricultural roads that cross lands currently under pineapple cultivation at elevations of 850 to 1,100 feet (ft) above mean sea level (msl). Kaukonahua and Poamoho streams form deep forested gulches along this alignment. These two perennial streams would be crossed with new stream crossing structures at elevations of approximately 700 to 800 ft msl.

Schofield Barracks-DMR Road (Dillingham Trail)

This project would also be located on existing agricultural roads. The alignment would descend from Schofield Barracks through approximately three miles of land that is under pineapple cultivation, and the remaining distance would traverse lands that were previously under sugarcane cultivation but now are in various diversified crops including seed corn, orchard crops, banana and coffee. As currently proposed, this road would depart from the Schofield-HMR Road in the upland area between Kaukonaha and Poamoho streams. The road would then cross Kaukonaha Stream again in its lower reaches (20 ft msl) near the Waialua neighborhood known as Ranch Camp where there is currently a bridge that was put in place by the sugar plantation. Subsequently, the road would cross several intermittent streams and drainageways, the largest of which is Makaleha Stream near Dillingham Ranch.

Kawaihae Harbor-PTA (Pohakuloa Military Trail)

This project would cross a variety of leeward Big Island terrestrial habitat types from an elevation of 6,500 ft msl at PTA down to sea level at Kawaihae Harbor. In the immediate vicinity of PTA there is a mosaic of native forest and shrubland interspersed with barren lava flows. The proposed alignment descends towards pasture lands dominated by kikuyu grass that is broken by occasional gulches, cinder cones and low hills (e.g., Waikii Ranch area, Popoo Gulch). The lower section of the proposed road alignment passes through arid kiawe scrub and lava fields. A number of threatened and endangered terrestrial plant and animal species are found in this vicinity. Please refer to documents associated with the ESA section 7 consultation for the Service position on conservation measures to address concerns regarding listed species. The proposed road would cross

Waiulaula Gulch, which is formed by the confluence of Waikoloa and Keanuimano streams. This stream system is perennial in its upper reaches and intermittent in its middle and lower reaches.

Aquatic Resources

The proposed Schofield-HMR and Schofield-DMR roads cross Kaukonahua and Poamoho streams, which flow from the crest of the Koolaus in an east-to-west direction. The Schofield-DMR road also crosses Makaleha Stream, which flows down the north-facing slopes of Mt. Kaala and the Waianae Range. The PTA-Kawaihae road crosses Waiulaula Gulch. Kaukonahua and Poamoho streams are considered perennial throughout their courses; Waiulaula stream is considered an "interrupted stream" because it is perennial in its upper reaches but flows intermittently in its middle and lower reaches; and Makaleha Stream is intermittent throughout. Numerous smaller un-named drainages are also crossed by the proposed road alignments.

Streams throughout Hawaii, including the north shore Oahu streams and Waiulaula Stream and its tributaries, have been altered for over a century by agricultural diversions. These human-caused modifications to surface and ground water systems have profoundly altered natural hydrologic regimes. These dams usually divert all flowing water out of the stream channel, leaving the reach below the dam completely dry for extended periods of time. For example, Kaukonahua Stream is one of the most significant freshwater features in the entire state. It is the longest watershed in Hawaii, extending over thirty miles from its headwaters to its confluence with the sea. Kaukonahua Stream is dammed and now forms the largest impoundment in the state, Wahiawa Reservoir. This impoundment was created to store water for sugar cane cultivation. Several miles of stream channel below the dam are now dry most of the time, and the aquatic habitats that once existed in the lower stream channel are now almost entirely eliminated. No structural modifications were incorporated into the design of dams built in the early days of the plantation era to facilitate passage of aquatic organisms within natural stream channels, nor have current environmental considerations led to water resource management for the maintenance of stream flows in the reaches below the dams. To the contrary, these diversion structures were specifically designed to be highly efficient in capturing and diverting as much of the stream flow as possible, particularly during periods of moderate and low flow, when agricultural demand for water resources is high, and coincidentally when the need for water to support aquatic life is most acute.

The dewatering of streams in the project areas is significant because the native freshwater fish and larger freshwater invertebrates of Hawaii's streams (Table 1) are migratory and are, therefore, dependent upon adequate instream flows to complete their life cycle. These species exhibit a diadromous life cycle known as amphidromy in which adults live and spawn in the stream environment, newly hatched larvae are dispersed downstream to the ocean where the larvae persist in the marine environment until they undertake a remarkable upstream migration. Several species are capable of ascending vertical or overhanging waterfalls, and some species are found in high elevation perennial sections of intermittent or interrupted (diverted) streams, above reaches that do not contain perennially flowing water.

Table 1. Migratory native freshwater organisms of Hawaii.

Scientific name	Hawaiian name	Biogeographic status	Type of organism
<i>Awaous guamensis</i>	O'opu nakea	indigenous	Freshwater fish (family Gobiidae)
<i>Lentipes concolor</i>	O'opu alamo'o	endemic	Freshwater fish (family Gobiidae)
<i>Stenogobius hawaiiensis</i>	O'opu naniba	endemic	Freshwater fish (family Gobiidae)
<i>Sicyopterus stimpsoni</i>	O'opu nopili	endemic	Freshwater fish (family Gobiidae)
<i>Eleotris sandwicensis</i>	O'opu akupa	endemic	Freshwater fish (family Eleotridae)
<i>Atyoida bisulcata</i>	Opae kala'ole	endemic	Freshwater shrimp Crustacean
<i>Macrobrachium grandimanus</i>	Opae 'oeh'a	endemic	Freshwater prawn Crustacean
<i>Neritina granosa</i>	Hihirwai	endemic	Freshwater snail Mollusk

Moderate numbers of most, if not all, of these species have been reported from lower and mid elevation areas of Kaukonahua Stream and Poamoho Stream, both of which may be effected by the proposed road projects (refer to the Hawaii Stream Assessment, the Hawaii Natural Heritage Program database, and the Oahu Training Areas Integrated Natural Resources Management Plan). At least two native fish species (*Awaous guamensis* and *Lentipes concolor*) are known to occur in moderate to low numbers in Waiulaula Stream (Bob Nishimoto, DLNR, pers. com; Pete Hendicks, DLNR, pers. com). No larger aquatic species are expected to be found in Makaleha Stream because it is dry most of the time. In addition to these native species, a considerable number of introduced aquatic species are known to occur in these streams and associated waterbodies (ditches and reservoirs).

Wildlife Resources

Hunting of feral pigs, goats and sheep in the lands adjacent to the road projects is fairly common, particularly the higher elevation areas near PTA. In addition, some upland game bird hunting is undertaken in these areas. The Service supports managed hunting of feral ungulates as a means to reduce their numbers for the purpose of watershed preservation and to reduce threats to rare, threatened and endangered animals and plants. Conservation management of State lands that are

designated as public hunting areas is strongly encouraged by the Service. Support of State hunting programs on these lands through the Service's Division of Federal Aid amounts to several hundred thousand dollars a year. In addition, adjacent landowners are generally in support of limiting feral ungulate populations because of the need to conserve watershed resources and to limit crop damage. Therefore, continued access to these lands during and after construction of the proposed road projects is necessary for the ongoing wildlife management task of controlling feral ungulates.

Planning Recommendations

The Service recommends that planning for the road projects incorporate stream protection measures both for the permanent installation and maintenance of the larger, more heavily used roadways, as well as for temporary construction related impacts. These goals should be accomplished by considering the following objectives in the design, engineering, and construction phases of the project:

1. **Minimize** concentration of runoff water volume and velocity, and reduce soil and sediment movement to maintain adequate water quality.
 - This objective should be accomplished by appropriate placement of surface cross drains to avoid discharges of runoff and roadway contaminants directly into stream channels or onto erodible slopes, and by providing buffers, grass swales, or sediment basins between cross drain outlets and stream channels.
2. Prevent stream crossings from being a direct source of sediment to streams and from degrading water quality by providing for unobstructed migratory passage for native aquatic migratory organisms.
 - This objective should be accomplished by the use of bottomless arch culverts and bridges that span the stream channel and adjacent streambanks wherever feasible. (Site specific information on stream flow characteristics may dictate special engineering considerations necessary to ensure uninterrupted fish passage.) At a minimum, bridges should be installed where ever stream flow is perennial (e.g., Kaukonahua and Poamoho streams) or where migration of native fauna is dependent upon intermittent flow (e.g., Waiulaula Stream). Culvert designs that retain natural bottom substrate and are large enough in diameter to allow adequate illumination by natural light should be used at all other stream crossings that exhibit characteristics of supporting intermittent flow. A plan that outlines removal of existing bridges and culverts should be developed, and demolition activities should be conducted in a manner that minimizes input of material into the aquatic environment.
3. Stringent application of effective best management practices (BMPs) throughout project construction. These BMPs should be tailored to specifically recognize the challenges posed

by the location and climatic conditions found along the proposed road alignments. A variety of sources should be consulted regarding BMP development and standard operating procedures for the construction phase of these projects, particularly the Corps Regulatory Branch and the Hawaii Department of Health, Clean Water Branch. BMPs should incorporate specific guidance on the following:

- in-stream construction should be scheduled to occur during low-flow time periods;
 - at the onset of periods of persistent or torrential rain in any season, construction should be halted, and exposed erodible areas should be secured;
 - project-related materials (fill, revetment rock, pipe etc.) should not be stockpiled in a stream channel or adjacent riparian zone;
 - all project-related materials and equipment (backhoes, trucks, etc) placed in the water should be free of pollutants;
 - contamination (including alien species introductions or disposal of trash or debris) in stream channels, riparian areas, or adjacent marine environments should not result from project-related activities;
 - fueling of project-related vehicles and equipment should take place away from the water and a contingency plan to control petroleum products accidentally spilled during the project should be developed. Absorbent pads and containment booms should be stored on-site to facilitate the clean-up of petroleum spills; and
 - turbidity and siltation from project-related work should be minimized and contained to within the vicinity of the site through the appropriate use of effective silt containment devices and the curtailment of work during adverse weather conditions.
4. Maintenance of access to lands used by hunters, wildlife managers, and natural resource personnel should continue during construction and operation of the military roads. Placement of gates, security checkpoints and other infrastructure should not impede hunter access to State lands or access to private lands by those who have permission to enter from the landowner.

As stated above, aquatic resources of concern are found in moderate to low numbers in the proposed project area. If the Army follows the above recommendations to avoid and minimize potential impacts to these resources, overall project impacts to fish and wildlife are not anticipated to be significant as defined by the FWCA. The Service will continue to track the development of these projects, and in particular the implementation of the conservation efforts suggested above, throughout the environmental review process. This will include reviews of Environmental Assessments and Environmental Impact Statements under NEPA, and reviews of

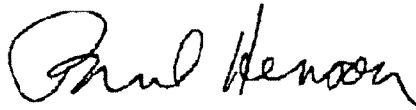
Lt. Colonel David C. Press

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permit actions under section 404 of the CWA. Unless the nature of the project changes or the Service is made aware of new information regarding fish and wildlife resources that may be potentially effected by the road projects, no field investigation and report under section 2(b) of the FWCA anticipated to be necessary.

The Service appreciates the opportunity to provide this Planning Aid Letter for the Army transformation road projects. If you have questions regarding this letter, please contact Fish and Wildlife Biologist Gordon Smith at 808/541-3441.

Sincerely,

A handwritten signature in black ink, appearing to read "Paul Henson". The signature is fluid and cursive, with the first name "Paul" being more prominent than the last name "Henson".

Paul Henson, Ph.D.
Field Supervisor

cc:

EPA Region IX, Honolulu

ACOE, Engineering and Construction, Honolulu

NMFS - PLAO, Honolulu

DAR - Hawaii

DOFAW - Hawaii

CZM - Hawaii

CWB - Hawaii



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY GARRISON, HAWAII
SCHOFIELD BARRACKS, HAWAII 96857-5000

April 25, 2003



Office of the Commander


Dr. Paul Henson
Field Supervisor
U.S. Fish and Wildlife Service
300 Ala Moana Blvd. Room 3-122
Honolulu, Hawaii 96850

Dear Dr. Henson:

I am pleased to provide you with copies of the final Biological Assessments (BA) for Programmatic Section 7 Consultation on Routine Military Training and SBCT Transformation for the Islands of Oahu and Hawaii. The purpose of this action is to initiate Section 7 consultation in accordance with the Endangered Species Act. I look forward to working with you to identify specific conservation measures to offset likely adverse impacts on listed and proposed threatened and endangered species during the formal Section 7 process.

Point of contact for this action is Joel Godfrey, Directorate of Public Works, Environmental Division, 656-2878 x1050.

Sincerely,


David L. Anderson
Colonel, US Army
Commanding

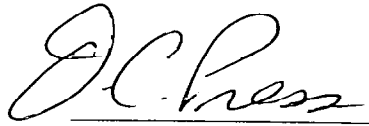
Enclosures

Programmatic Biological Assessment
for
Routine Military Training
and
Transformation of the 2nd Brigade
25th Infantry Division (Light), U.S. Army

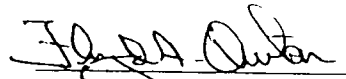
Oahu, Hawaii

April 2003

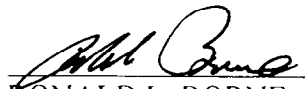
Prepared by:

 21 APR 03
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Reviewed by:

 22 APR 03
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 23 Apr 03
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Approved by the Proponent:

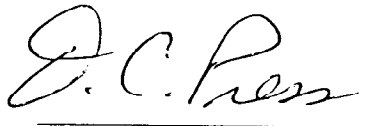
 25 Apr '03
DAVID L. ANDERSON
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Programmatic Biological Assessment
for
Transformation of the 2nd Brigade
25th Infantry Division (Light), U.S. Army

Island of Hawaii

April 2003

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21 APR 03

Date

Reviewed by:



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Date

Reviewed by:




RONALD L. BORNE
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U.S. Army Garrison, Hawaii

23 Apr 03

Date

Approved by the Proponent:



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25 Apr '03

Date

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